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**IN THE CLAIMS:**

Please add the following new claims:

22. A nucleic acid sequence encoding a TNF inhibitor comprising a sequence selected from the group consisting of:

- (i) the DNA sequence as shown in Fig. 37, a coding portion thereof, or a portion thereof which encodes a TNF inhibitor;
- (ii) the DNA sequence as shown in Fig. 39, a coding portion thereof, or a portion thereof which encodes a TNF inhibitor;
- (iii) a sequence which is degenerate in the coding regions or portions thereof of (i) or (ii); and
- (iv) a sequence which hybridizes to a DNA sequence complementary to (i), (ii), or (iii).


23. A nucleic acid sequence of claim 22, wherein the sequence encodes a TNF inhibitor comprising an amino acid sequence selected from the group consisting of:

- (i) an amino acid sequence as shown in Figure 37 or a TNF inhibitory fragment thereof;
- (ii) an amino acid sequence as shown in Figure 38 or a TNF inhibitory fragment thereof;

LAW OFFICES

FINNEGAN, HENDERSON,  
FARABOW, GARRETT  
& DUNNER, L.L.P.  
1300 I STREET, N. W.  
WASHINGTON, D. C. 20005  
202-408-4000

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- (iii) an amino acid sequence as shown in Figure 39 or a TNF inhibitory fragment thereof;
  - (iv) an amino acid sequence as shown by residues 1 through 182 (40kDa inhibitor  $\Delta 53$ ) in Figure 38 or a TNF inhibitory fragment thereof; and
  - (v) an amino acid sequence as shown by residues 1 through 184 (40kDa inhibitor  $\Delta 51$ ) in Figure 38 or a TNF inhibitory fragment thereof.

24. A nucleic acid of claim 23, comprising a DNA sequence as shown in Figure 37.

25. A nucleic acid of claim 23, comprising a DNA sequence as shown in Figure 39.

26. A nucleic acid of claim 23, comprising a DNA sequence encoding the amino acid sequence as shown in Figure 37.

27. A nucleic acid of claim 23, comprising a DNA sequence encoding the amino acid sequence as shown in Figure 38.

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FINNEGAN, HENDERSON,  
FARABOW, GARRETT  
& DUNNER, L. L. P.  
1300 I STREET, N. W.  
WASHINGTON, D. C. 20005  
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28. A nucleic acid of claim 23, comprising a DNA sequence encoding the amino acid sequence as shown in Figure 39.

29. A nucleic acid of claim 23, wherein the TNF inhibitor has a methionine residue at the N-terminus.

30. A nucleic acid of claim 23, wherein the TNF inhibitor has a signal sequence at the N-terminus.

31. A nucleic acid of claim 22, wherein said TNF inhibitor has a non-naturally occurring cysteine residue, wherein said non-naturally occurring cysteine is the C-terminal residue, the N-terminal residue, or at a glycosylation site of said inhibitor.

32. A nucleic acid sequence encoding a TNF inhibitor having TNF inhibitory activity, wherein said TNF inhibitor comprises an amino acid sequence selected from the group consisting of:

- (i) an amino acid sequence as shown in Figure 19 or a TNF inhibitory fragment thereof; and
- (ii) an amino acid sequence as shown in Figure 21 or a TNF inhibitory fragment thereof;

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wherein said TNF inhibitor has a non-naturally occurring cysteine residue, wherein said non-naturally occurring cysteine is the C-terminal residue of the sequence of (i) or (ii), the N-terminal residue of the sequence of (i) or (ii), or at a glycosylation site of the sequence of (i) or (ii).

33. A nucleic acid of claim 32, wherein the TNF inhibitor further comprises a methionine residue at the N-terminus.

34. A nucleic acid of claim 32, wherein the TNF inhibitor further comprises a signal sequence at the N-terminus.

35. A nucleic acid of claim 32, wherein:


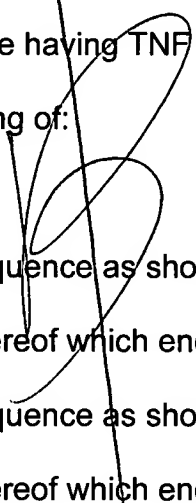
said polypeptide comprises the amino acid sequence as set forth in Figure 19 or a TNF inhibitory fragment thereof except at the position of said non-naturally-occurring cysteine, and

said non-naturally-occurring cysteine is at positions 14 or 105 of Figure 19.

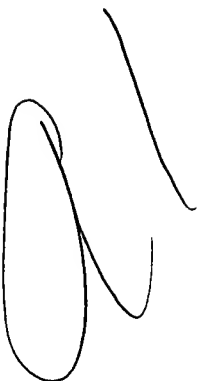
36. A vector, comprising a nucleic acid sequence defined claim 22.

37. A vector of claim 36, wherein said vector is an expression vector.

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38. A vector of claim 36, which is replicable in a prokaryotic cell.
39. A vector of claim 38, which is replicable in *E. Coli*.
40. A vector of claim 36, which is replicable in a eukaryotic host cell.
41. A vector of claim 40, which is replicable in a mammalian cell.
42. A vector of claim 41, which is replicable in a Chinese Hamster Ovary cell.
43. A vector, comprising a nucleic acid sequence defined claim 32.
44. A recombinant host cell containing a DNA molecule comprising a DNA sequence encoding a polypeptide having TNF inhibitory activity comprising a sequence selected from the group consisting of:
- (i) the DNA sequence as shown in Fig. 37, a coding portion thereof, or a portion thereof which encodes a TNF inhibitor;
  - (ii) the DNA sequence as shown in Fig. 39, a coding portion thereof, or a portion thereof which encodes a TNF inhibitor;
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- (iii) a DNA sequence which is degenerate in the coding regions or portions thereof of (i) or (ii);
  - (iv) a DNA sequence that encodes an amino acid sequence as shown in Figure 37 or a TNF inhibitory fragment thereof;
  - (v) a DNA sequence that encodes an amino acid sequence as shown in Figure 38 or a TNF inhibitory fragment thereof; and
  - (vi) a DNA sequence that encodes an amino acid sequence as shown in Figure 39 or a TNF inhibitory fragment thereof.

45. A host cell of claim 44, which is a prokaryotic cell.

46. A host cell of claim 45, which is *E. Coli*.

47. A host cell of claim 44, which is a eukaryotic host cell.

48. A host cell of claim 47, which is a mammalian cell.

49. A host cell of claim 48, which is a Chinese Hamster Ovary cell.

50. A host cell of claim 44, wherein the DNA molecule comprises promoter DNA, other than the promoter DNA for the native polypeptide having TNF inhibitory

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activity, operatively linked to the DNA sequence encoding the polypeptide having TNF inhibitory activity.

51. A host cell of claim 44, wherein the host cell is not capable of glycosylation or is a non-human host cell capable of glycosylation.

52. A process for preparing a polypeptide having TNF inhibitory activity comprising producing the polypeptide in a recombinant host cell according to claim 44 under suitable conditions to express the DNA sequence encoding the polypeptide having TNF inhibitory activity contained therein to produce the polypeptide and recovering the polypeptide.

53. A process of claim 52, wherein the host cell is a prokaryotic cell.

54. A process of claim 53, wherein the host cell is *E. Coli*.

55. A process of claim 52, wherein the host cell is a eukaryotic cell.

56. A process of claim 55, wherein the host cell is a mammalian cell.

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FINNEGAN, HENDERSON,  
FARABOW, GARRETT  
& DUNNER, L. L. P.  
1300 I STREET, N. W.  
WASHINGTON, D. C. 20005  
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57. A process of claim 56, wherein the host cell is a Chinese Hamster Ovary cell.

58. A process of claim 52, wherein the DNA molecule comprises promoter DNA, other than the promoter DNA for the native polypeptide having TNF inhibitory activity, operatively linked to the DNA sequence encoding the polypeptide having TNF inhibitory activity.

59. A process of claim 52, wherein the host cell is not capable of glycosylation or is a non-human host cell capable of glycosylation.

60. A process of claim 52, wherein the host cell is grown under suitable nutrient conditions to amplify the nucleic acid sequence encoding the polypeptide having TNF inhibitory activity.


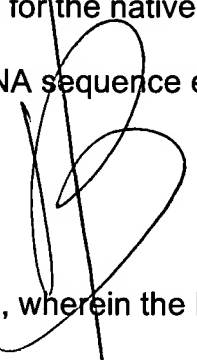
61. A process for preparing a recombinant host cell containing polypeptide having TNF inhibitory activity comprising producing the polypeptide in a recombinant host cell according to claim 44 under suitable conditions to express the DNA sequence encoding the polypeptide having TNF inhibitory activity contained therein to produce the polypeptide.

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FINNEGAN, HENDERSON,  
FARABOW, GARRETT  
& DUNNER, L.L.P.  
1300 I STREET, N.W.  
WASHINGTON, D. C. 20005  
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62. A process of claim 61, wherein the host cell is a prokaryotic cell.
63. A process of claim 62, wherein the host cell is *E. Coli*.
64. A process of claim 61, wherein the host cell is a eukaryotic cell.
65. A process of claim 64, wherein the host cell is a mammalian cell.
66. A process of claim 65, wherein the host cell is a Chinese Hamster Ovary cell.
67. A process of claim 61, wherein the DNA molecule comprises promoter DNA, other than the promoter DNA for the native polypeptide having TNF inhibitory activity, operatively linked to the DNA sequence encoding the polypeptide having TNF inhibitory activity.
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68. A process of claim 61, wherein the host cell is not capable of glycosylation or is a non-human host cell capable of glycosylation.

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FINNEGAN, HENDERSON,  
FARABOW, GARRETT  
& DUNNER, L. L. P.  
1300 I STREET, N. W.  
WASHINGTON, D. C. 20005  
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69. A process of claim 61, wherein the host cell is grown under suitable nutrient conditions to amplify the nucleic acid sequence encoding the polypeptide having TNF inhibitory activity.

70. A process of claim 52, further comprising a step of modifying the recovered polypeptide to produce a compound that possesses TNF inhibitory activity.

71. A process of claim 70, wherein said modifying comprises attaching a high molecular weight polymeric material to the recovered polypeptide.

72. A process of claim 71, wherein said high molecular weight polymeric material is polyethylene glycol.

73. A process for making a pharmaceutical composition comprising combining the recovered polypeptide of claim 52 with a pharmaceutically acceptable carrier.

74. A recombinant host cell containing a DNA molecule comprising a DNA sequence encoding a polypeptide having TNF inhibitory activity comprising a sequence selected from the group consisting of:

- (i) an amino acid sequence as shown in Figure 19 or a TNF inhibitory fragment thereof; and

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FINNEGAN, HENDERSON,  
FARABOW, GARRETT  
& DUNNER, L. L. P.  
1300 I STREET, N. W.  
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- (ii) an amino acid sequence as shown in Figure 21 or a TNF inhibitory fragment thereof;

wherein said TNF inhibitor has a non-naturally occurring cysteine residue, wherein said non-naturally occurring cysteine is the C-terminal residue of the sequence of (i) or (ii), the N-terminal residue of the sequence of (i) or (ii), or at a glycosylation site of the sequence of (i) or (ii).

75. A process for preparing a polypeptide having TNF inhibitory activity comprising producing the polypeptide in a recombinant host cell according to claim 74 under suitable conditions to express the DNA sequence encoding the polypeptide having TNF inhibitory activity contained therein to produce the polypeptide and recovering the polypeptide.

Please cancel claims 1 to 21 without prejudice or disclaimer.

#### REMARKS

Claims 1 through 21 have been canceled without prejudice or disclaimer. New claims 22 through 75 have been added. Thus, claims 22 through 75 are pending.

Applicants thank Examiner Draper for the personal interview on July 17, 1997. The following remarks reflect and expand upon the discussion during the interview.

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FINNEGAN, HENDERSON,  
FARABOW, GARRETT  
& DUNNER, L. L. P.  
1300 I STREET, N. W.  
WASHINGTON, D. C. 20005  
202-408-4000